

ABSTRACT

Tissue culture medium such as porous frameworks and even open surface multidirectional porous frameworks may be used to provide uniform distribution of 5 nourishment solutions, uniform interstitial voids as well as undistorted transport fields which may facilitate high volume yields of finished plants from cells, such as explants in a tissue culturing process. Further embodiments may include automating a tissue culturing process to reduce labor costs and increase uniformity of finished plants through tissue culture processes.